# doximity

Language
Barriers in
U.S. Health Care

Understanding communication trends between U.S. physicians and patients



**OCTOBER 2017** 

#### Introduction

Verbal communication between doctors and patients is important. Without it, patients cannot adequately explain symptoms, discuss preferred treatments, or ask questions, and physicians can find it more challenging to diagnose, prescribe care options, or recommend healthy behaviors.

Americans, however, speak a variety of languages beyond English. And many are not proficient in English, which can lead to communication challenges with English-speaking physicians. There are 25 million people, 8 percent of the U.S. population ages 5 and older, who are "limited English proficient." This is a large population, which has grown over the last several decades, and is projected to grow further in the coming years.

And while certified medical interpreters are a valuable resource, they may not be sufficient to close all gaps between physicians and patients who speak different languages. Many hospitals have professional interpreters available—between 38 and 68 percent—but research shows they are not always well integrated into physicians' workflows.<sup>2</sup> As a result, many medical interactions rely on untrained staff or family members to interpret, which patients report as unsatisfactory. Even when interpreters are available, issues can go unaddressed, as patients are more likely to report having questions about their care that they wanted to ask, but did not. These concerns however, are addressed when patients are seen by physicians who speak their same language.3

Moreover, research indicates that when patients can communicate in the same language as their physician, they can achieve better health care outcomes. In a study evaluating Spanish-speaking patients with type 2 diabetes, patients who received care from a Spanish-speaking physician did not experience issues with glycemic control compared with those who saw physicians who did not speak Spanish. Overall, patients with physicians who speak their language report better "interpersonal care," comparable to that of patients who are proficient in English.

While there has been ample research on the challenges patients and physicians face when they do not speak the same language, no comprehensive study has yet determined which non-English languages are most commonly spoken by physicians nationally, or how the languages spoken by doctors compare to patient populations.

This study represents a first step in attempting to understand these demographic trends, and examines the languages that physicians report speaking across



the 50 largest U.S. metropolitan statistical areas (MSAs), drawing on the Doximity profiles of more than 60,000 licensed physicians who speak a language other than English.

With 70 percent of all U.S. doctors as members, Doximity is the largest medical social network. Doximity is uniquely positioned to study these trends not just on the national level, but also, and more importantly, at the local level.

Doximity profile data contains the most comprehensive physician language sampling available, and is the first of its kind to compare the languages physicians speak in each of the top 50 metros - along with the U.S. Census data on languages that patients speak in those same areas. It also expands beyond previous research that has focused specifically within the Spanish-speaking population to assess more than 30 common languages spoken in the United States.

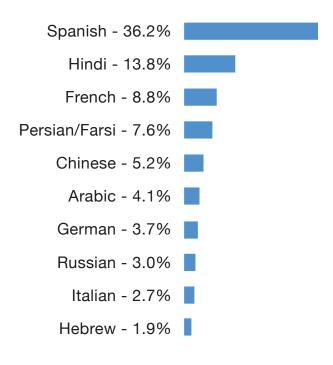
## **Key findings**

- U.S. physicians speak a wide variety of languages other than English. The most common, non-English languages physicians report speaking are: Spanish, Hindi, French, Persian/Farsi, Chinese, Arabic, German, Russian, Italian, and Hebrew.
- Nearly half (44.7 percent) of all physicians who speak a second language graduated from a medical school located outside of the United States, and most of these doctors immigrated to the United States to practice medicine.
- There are significant mismatches among the languages physicians speak and the languages patients speak. The languages with the greatest disparities are: Swahili and Sub-Saharan African, Hamitic and Near East Arabic, Polynesian, Burmese and Southeast Asian, Filipino, Korean, Indonesian, Vietnamese, Thai, and Japanese.
- Almost all top 50 metropolitan areas have weak matches between the languages physicians and patients speak. Only two metro areas have strong matches: Milwaukee, Wisconsin and Columbus, Ohio.



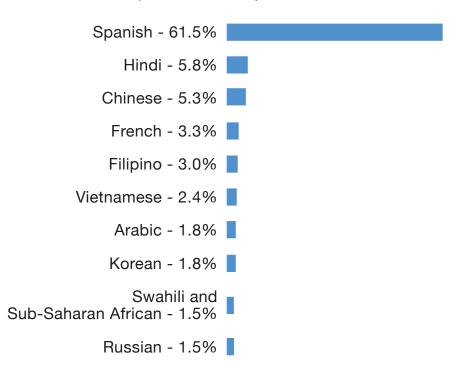
## Languages U.S. Physicians Speak

Top 10 non-English languages spoken by multilingual physicians nationally:



## Languages U.S. Patients Speak

Top 10 non-English languages spoken by patients nationally:



To be board certified to practice medicine in the United States, one must be proficient in English. Of course, many American physicians speak a variety of languages other than English, just as the general population does.

## Physician-Patient Language Matches

There is a disconnect between the most common languages spoken by physicians and patients. While Spanish is far and away the most common language spoken by both patients and physicians other than English, the remaining most common languages greatly vary.

Beyond the top-two most common, non-English languages (Spanish and Hindi), there is wide variation between patients and physicians. The two groups share only six of the top 10 most common languages with each other. Among the top 10 languages for patients, Filipino, Vietnamese, Korean, and Swahili and Sub-Saharan African are included, while physicians more commonly speak Persian/Farsi, German, Italian, and Hebrew.

We ranked each language to understand how closely physicians and patients compare.

The following 10 languages have more patients proportionally who speak them than physicians. beginning with the greatest disparity. Patients who speak these languages are most likely to have challenges finding physicians who speak their language.

- 1. Swahili and Sub-Saharan African
- 2. Hamitic and Near East Arabic
- 3. Polynesian
- 4. Burmese and Southeast Asian
- 5. Filipino
- 6. Korean
- 7. Indonesian
- 8. Vietnamese
- 9. Thai
- 10. Japanese

The following 10 languages have more physicians who speak them than patients, beginning with the greatest surplus. Patients who speak these languages are most likely to have an easier time finding physicians who speak their language.

- 1. Persian/Farsi
- 2. Hebrew
- 3. Scandinavian
- 4. Navajo
- 5. German
- 6. Danish
- 7. Native American
- 8. Greek
- 9. Romanian
- 10. Turkish



## Metropolitan Areas by Language Match

We also evaluated how these dynamics play out across the largest 50 metropolitan areas. This index reveals which metros have the greatest matches between the languages local physicians and patients speak.

Out of the 50 largest metros, only two have very strong matches between physicians and patients: Milwaukee, Wisconsin and Columbus, Ohio. The remaining metros have weak matches between the languages physicians speak and the languages patients speak.

The 10 metros with the weakest matches are:

- 1. Washington, DC
- 2. Louisville, KY
- 3. Minneapolis, MN
- 4. Baltimore, MD
- 5. Seattle, WA
- 6. Detroit. MI
- 7. Boston, MA
- 8. Pittsburgh, PA
- 9. Nashville, TN
- 10. Jacksonville, FL



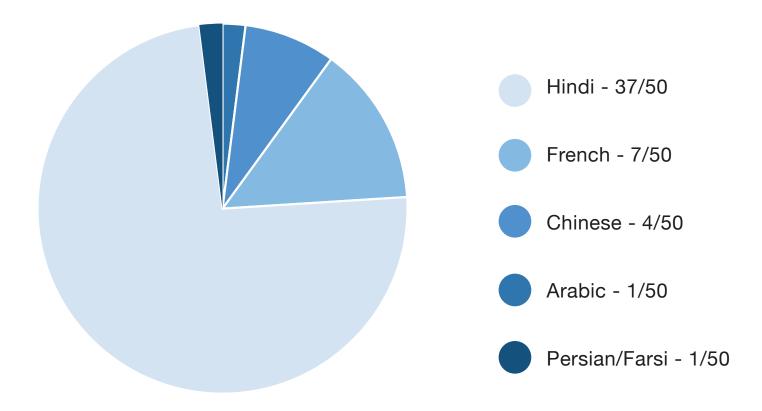
The reasons for these mismatches vary: it could be because the patient population is very diverse, but the physician population is not; or the patient population could be less diverse, but the languages the physician population speaks still do not match that population.

Metropolitan areas with proportionally more patients than physicians who speak a specific language may have difficulty meeting the needs of those patients. Local leaders may need to invest resources in training and recruiting physicians with specific language skills or increase the number of interpreters for specific languages and improve their integration into clinical practice.



## Most Common Languages Spoken by Multilingual Physicians

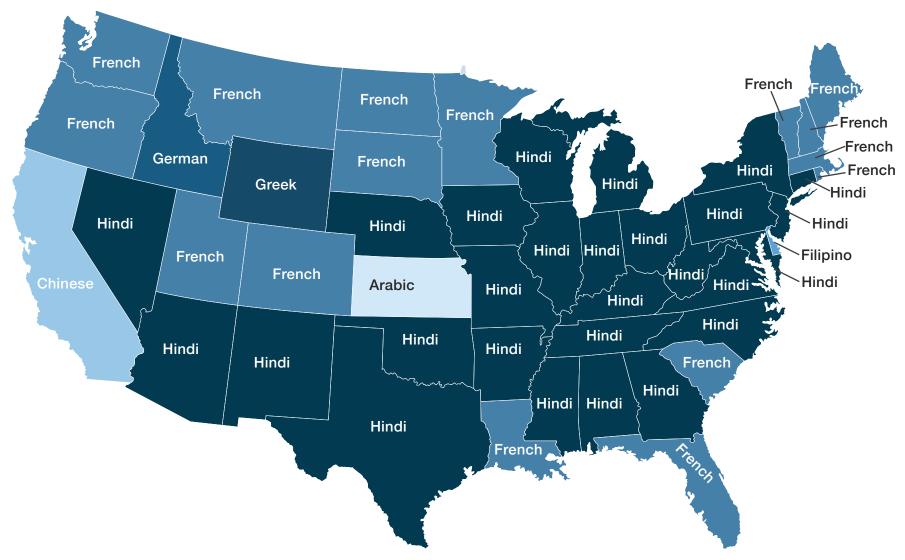
These are the most common languages spoken by physicians, other than Spanish and English, in the 50 largest U.S. metro areas.





## Most Common Languages Spoken by Multilingual Physicians

These are the most common languages spoken by physicians, other than Spanish and English, by state.



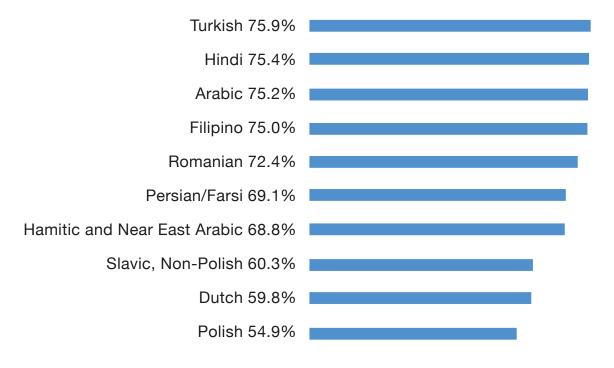


## Foreign-Trained Physicians

Nearly half (44.7 percent) of all physicians who speak a second language graduated from a medical school outside the United States. Foreign training is the strongest proxy available for whether a physician has immigrated to the United States. When exploring the languages spoken by practicing U.S. physicians who received their medical training internationally, the share varies dramatically, from 75.9 percent of those who speak Turkish to 12.4 percent of those who speak Vietnamese.

## Top 10 Languages by Share of Physicians Foreign Trained

Among doctors who report speaking a non-English language, these are the percentages that were educated abroad:



Recently proposed changes to U.S. immigration policy. particularly banning immigrants from certain countries could reduce the total population of doctors who speak a non-English language. Further restrictions could have a negative effect with these populations.



### Conclusion

Improving our health care system means increasing access to health care and advancing the quality of health care, both of which can be tied back to verbal communication between patients and their doctors. We hope this report serves as a resource explaining the challenges to effective communication, a cornerstone of effective health care. And we hope it proves helpful to key health care stakeholders, including providers, policymakers, patient advocates, and other academics interested in the further study of this topic.

#### Methodology

The physician language data comes from self-reported responses in the Doximity social network. From the Doximity data, we identified the most common, non-English languages spoken by providers in each MSA. To measure the languages spoken by patients, we used data from the U.S. Census Bureau's American Community Survey (ACS). 4 The ACS data are weighted to a nationally representative sample of the U.S. population. We used the ACS data to identify the most common, non-English languages spoken in each metropolitan area.

#### References

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- 3. Green, Alexander R., Quyen Ngo-Metzger, Anna T.R. Legedza, Michael P. Massagli, Russell S. Phillips, and Lisa I. lezzoni. "Interpreter services, language concordance, and health care quality." Journal of General Internal Medicine, 20(11): 1050-1056 (2005).
- 4. Steven Ruggles, Katie Genadek, Ronald Goeken, Josiah Grover, and Matthew Sobek. Integrated Public Use Microdata Series: Version 7.0 [dataset]. Minneapolis, MN: University of Minnesota, 2017. https://doi.org/10.18128/D010.V7.0.



Languages Spoken my Multilingual Physicians and Patients Nationally

LANGUAGE	PHYSICIAN SHARE	PHYSICIAN RANK	PATIENT SHARE	PATIENT RANK
Spanish	36.2%	1	61.6%	1
Hindi	13.8%	2	5.8%	2
French	8.8%	3	3.3%	4
Persian/Farsi	7.6%	4	0.8%	15
Chinese	5.2%	5	5.3%	3
Arabic	4.1%	6	1.8%	7
German	3.7%	7	1.3%	11
Russian	3.0%	8	1.5%	10
Italian	2.7%	9	1.0%	13
Hebrew	1.9%	10	0.3%	23
Portuguese	1.8%	11	1.2%	12
Filipino	1.6%	12	3.0%	5
Korean	1.2%	13	1.8%	8
Vietnamese	1.1%	14	2.4%	6
Slavic, Non-Polish	1.0%	15	0.8%	16
Greek	1.0%	16	0.5%	20
Polish	0.9%	17	0.9%	14
Japanese	0.7%	18	0.7%	17
Romanian	0.7%	19	0.3%	26
Turkish	0.5%	20	0.2%	30

LANGUAGE	PHYSICIAN SHARE	PHYSICIAN RANK	PATIENT SHARE	PATIENT RANK
Armenian	0.5%	21	0.4%	21
Ukrainian	0.4%	22	0.2%	28
Dutch	0.3%	23	0.2%	29
Thai	0.3%	24	0.5%	19
Scandinavian	0.3%	25	0.0%	34
Burmese and Southeast Asian	0.2%	26	0.5%	18
Swahili and Sub-Saharan African	0.2%	27	1.5%	9
Indonesian	0.1%	28	0.3%	25
Danish	0.1%	29	0.0%	35
Himalayan	0.1%	30	0.4%	22
Lithuanian	0.1%	31	0.1%	33
Navajo	0.0%	32	0.1%	32
Native American	0.0%	33	0.1%	31
Hamitic and Near East Arabic	0.0%	34	0.3%	24
Polynesian	0.0%	35	0.3%	27



METRO	LANGUAGE MOST UNDER REPRESENTED	PHYSICIAN LANGUAGE RANK	PATIENT LANGUAGE RANK
Atlanta, GA	Burmese and Southeast Asian	1. Spanish	1. Spanish
		2. Hindi	2. Hindi
		3. French	3. French
		4. Persian/Farsi	4. Chinese
		5. German	5. Korean
		6. Chinese	6. Vietnamese
		7. Arabic	7. Portuguese
		8. Russian	8. Russian
		9. Italian	9. Arabic
		10. Hebrew	10. Slavic, Non- Polish

Baltimore, MD	Swahili and Sub- Saharan African	1. Spanish	1. Spanish
		2. Hindi	2. Hindi
		3. French	3. Chinese
		4. Persian/Farsi	4. French
		5. Chinese	5. Swahili and Sub- Saharan African
		6. German	6. Korean
		7. Arabic	7. Russian
		8. Hebrew	8. Arabic
		9. Russian	9. Filipino
		10. Korean	10. German

METRO	LANGUAGE MOST UNDER REPRESENTED	PHYSICIAN LANGUAGE RANK	PATIENT LANGUAGE RANK
Boston, MA	Swahili and Sub- Saharan African	1. Spanish	1. Spanish
		2. French	2. Chinese
		3. Hindi	3. French
		4. Chinese	4. Portuguese
		5.German	5. Hindi
		6. Persian/Farsi	6. Russian
		7. Arabic	7. Vietnamese
		8. Portuguese	8. Arabic
		9. Russian	9. Italian
		10.Italian	10. Burmese and Southeast Asian

Chicago, IL	Swahili and Sub- Saharan African	1. Spanish	1. Spanish
		2. Hindi	2. Hindi
		3. Persian/Farsi	3. Polish
		4. French	4. Chinese
		5. Arabic	5. Filipino
		6. Russian	6.Arabic
		7.Polish	7. Slavic, Non-Polish
		8. Chinese	8. Russian
		9. Greek	9. French
		10 .German	10. Swahili and Sub- Saharan African



METRO	LANGUAGE MOST UNDER REPRESENTED	PHYSICIAN LANGUAGE RANK	PATIENT LANGUAGE RANK
Dallas, TX	Swahili and Sub- Saharan African	1. Spanish	1. Spanish
		2. Hindi	2. Hindi
		3. Persian/Farsi	3. Vietnamese
		4. French	4. Chinese
		5. Chinese	5. Swahili and Sub- Saharan African
		6. Vietnamese	6. Arabic
		7. Arabic	7. French
		8. German	8. Filipino
		9. Korean	9. Korean
		10. Russian	10. German

Detroit, MI	Slavic, Non- Polish	1. Hindi	1. Spanish
		2. Arabic	2. Arabic
		3. Spanish	3. Hindi
		4. Persian/Farsi	4. Slavic, Non-Polish
		5. French	5. Hamitic and Hamitic and Near East Arabic Arabic
		6. Chinese	6. Chinese
		7. German	7. Polish
		8. Russian	8. Italian
		9. Polish	9. German
		10. Italian	10. Vietnamese

METRO	LANGUAGE MOST UNDER REPRESENTED	PHYSICIAN LANGUAGE RANK	PATIENT LANGUAGE RANK
Houston, TX	Burmese and Southeast Asian	1. Spanish	1. Spanish
		2. Hindi	2. Hindi
		3. Persian/Farsi	3. Vietnamese
		4. French	4. Chinese
		5. Arabic	5. Filipino
		6. Chinese	6. Arabic
		7. Vietnamese	7. French
		8. German	8. German
		9. Portuguese	9. Persian/Farsi
		10. Italian	10. Portuguese

Jacksonville, FL	Swahili and Sub- Saharan African	1. Spanish	1. Spanish
		2. Hindi	2. Filipino
		3. Persian/Farsi	3. French
		4. French	4. Hindi
		5. German	5. Slavic, Non-Polish
		6. Arabic	6. Vietnamese
		7. Chinese	7. Arabic
		8. Filipino	8. Chinese
		9. Russian	9. Swahili and Sub- Saharan African
		10. Italian	10. German



METRO	LANGUAGE MOST UNDER REPRESENTED	PHYSICIAN LANGUAGE RANK	PATIENT LANGUAGE RANK
Los Angeles, CA	Swahili and Sub- Saharan African	1. Spanish	1. Spanish
		2. Chinese	2. Chinese
		3. Persian/Farsi	3. Filipino
		4. Hindi	4. Korean
		5. French	5. Vietnamese
		6. Russian	6. Armenian
		7. Vietnamese	7. Hindi
		8. Arabic	8. Persian/Farsi
		9. Hebrew	9. Arabic
		10. Armenian	10. Japanese

Louisville, KY	Swahili and Sub- Saharan African	1. Spanish	1. Spanish
		2. Hindi	2. Hindi
		3. French	3. Swahili and Sub- Saharan African
		4. Persian/Farsi	4. Arabic
		5. German	5. Chinese
		6. Arabic	6. German
		7. Chinese	7. Russian
		8. Italian	8. Vietnamese
		9. Greek	9. Filipino
		10. Portuguese	10. Persian/Farsi

METRO	LANGUAGE MOST UNDER REPRESENTED	PHYSICIAN LANGUAGE RANK	PATIENT LANGUAGE RANK
Miami, FL	Swahili and Sub- Saharan African	1. Spanish	1. Spanish
		2. French	2. French
		3. Hindi	3. Portuguese
		4. Portuguese	4. Hindi
		5. Italian	5. Chinese
		6. Hebrew	6. Italian
		7. Persian/Farsi	7. Arabic
		8. German	8. Russian
		9. Russian	9. Hebrew
		10. Arabic	10. German

Minneapolis, MN	Swahili and Sub- Saharan African	Spanish	Spanish
		French	Hindi
		Hindi	Swahili and Sub- Saharan African
		German	Vietnamese
		Arabic	Chinese
		Russian	French
		Hebrew	German
		Persian/Farsi	Indonesian
		Chinese	Russian
		Italian	Arabic



METRO	LANGUAGE MOST UNDER REPRESENTED	PHYSICIAN LANGUAGE RANK	PATIENT LANGUAGE RANK
Nashville, TN	Swahili and Sub- Saharan African	1. Spanish	1. Spanish
		2. Hindi	2. Arabic
		3. French	3. Hindi
		4. German	4. Thai
		5. Persian/Farsi	5. French
		6. Arabic	6. Swahili and Sub- Saharan African
		7. Portuguese	7. German
		8. Chinese	8. Persian/Farsi
		9. Italian	9. Chinese
		10. Russian	10. Japanese

New York, NY	Swahili and Sub- Saharan African	1. Spanish	1. Spanish
		2. Hindi	2. Hindi
		3. French	3. Chinese
		4. Persian/Farsi	4 French
		5. Russian	5. Russian
		6. Chinese	6. Italian
		7. Italian	7. Korean
		8. Hebrew	8. Filipino
		9. Arabic	9. Arabic
		10. German	10. Polish

METRO	LANGUAGE MOST UNDER REPRESENTED	PHYSICIAN LANGUAGE RANK	PATIENT LANGUAGE RANK
Philadelphia, PA	Vietnamese	1. Spanish	1. Spanish
		2. Hindi	2. Hindi
		3. French	3. Chinese
		4. Persian/Farsi	4. French
		5. Chinese	5. Vietnamese
		6. Italian	6. Russian
		7. German	7. Korean
		8. Russian	8. Italian
		9. Arabic	9. Arabic
		10. Portuguese	10. Filipino

Phoenix, AZ	Vietnamese	1. Spanish	1. Spanish
		2. Hindi	2. Hindi
		3. Persian/Farsi	3. Chinese
		4. French	4. Vietnamese
		5. Chinese	5. Arabic
		6. Arabic	6. Filipino
		7. German	7. French
		8. Portuguese	8. German
		9. Russian	9. Korean
		10. Filipino	10. Hamitic and Near East Arabic Arabic



METRO	LANGUAGE MOST UNDER REPRESENTED	PHYSICIAN LANGUAGE RANK	PATIENT LANGUAGE RANK
Pittsburgh, PA	Swahili and Sub- Saharan African	1. Spanish	1. Spanish
		2. Hindi	2. Hindi
		3. French	3. Chinese
		4. Persian/Farsi	4. French
		5. Arabic	5. German
		6. German	6. Italian
		7. Chinese	7. Arabic
		8. Russian	8. Swahili and Sub- Saharan African
		9. Italian	9. Russian
		10. Slavic, Non- Polish	10. Japanese

Riverside, CA	Indonesian	1. Spanish	1. Spanish
		2. Hindi	2. Filipino
		3. Persian/Farsi	3. Chinese
		4. Chinese	4. Hindi
		5. Filipino	5. Vietnamese
		6. Arabic	6. Korean
		7. French	7. Arabic
		8. Korean	8. Persian/Farsi
		9. Vietnamese	9. Thai
		10. Italian	10. German

METRO	LANGUAGE MOST UNDER REPRESENTED	PHYSICIAN LANGUAGE RANK	PATIENT LANGUAGE RANK
San Francisco, CA	Polynesian	1. Spanish	1. Spanish
		2. Chinese	2. Chinese
		3. French	3. Filipino
		4. Hindi	4. Hindi
		5. Persian/Farsi	5. Vietnamese
		6. German	6. Russian
		7. Filipino	7. Korean
		8. Russian	8. Arabic
		9. Italian	9. French
		10. Arabic	10. Persian/Farsi

Seattle, WA	Swahili and Sub- Saharan African	1. Spanish	1. Spanish
		2. Chinese	2. Chinese
		3. French	3. Hindi
		4. Hindi	4. Filipino
		5. Persian/Farsi	5. Vietnamese
		6. German	6. Korean
		7. Vietnamese	7. Russian
		8. Russian	8. Swahili and Sub- Saharan African
		9. Italian	9. Ukrainian
		10. Japanese	10. Japanese



METRO	LANGUAGE MOST UNDER REPRESENTED	PHYSICIAN LANGUAGE RANK	PATIENT LANGUAGE RANK
Washington, DC	Swahili and Sub- Saharan African	1. Spanish	1. Spanish
		2. Hindi	2. Hindi
		3. Persian/Farsi	3. Swahili and Sub- Saharan African
		4. French	4. Chinese
		5. Arabic	5. French
		6. German	6. Vietnamese
		7. Chinese	7. Korean
		8. Italian	8. Arabic
		9. Russian	9. Filipino
		10. Korean	10. Persian/Farsi



## Language Index

LANGUAGE	RANK
Persian/Farsi	1
Hebrew	2
Scandinavian	3
Navajo	4
German	5
Danish	6
Native American	7
Greek	8
Romanian	9
Turkish	10
French	11
Italian	12
Russian	13
Dutch	14
Hindi	15
Arabic	16
Spanish	17
Portuguese	18
Lithuanian	19

LANGUAGE	RANK
Himalayan	20
Chinese	21
Ukrainian	22
Polish	23
Slavic, Non-Polish	24
Armenian	25
Japanese	26
Thai	27
Vietnamese	28
Indonesian	29
Korean	30
Filipino	31
Burmese and Southeast Asian	32
Polynesian	33
Hamitic and Near East Arabic	34
Swahili and Sub- Saharan African	35



Share of Physicians Foreign Trained by Language

LANGUAGE	SHARE FOREIGN TRAINED
Turkish	75.9%
Hindi	75.4%
Arabic	75.2%
Filipino	75.0%
Romanian	72.4%
Persian/Farsi	69.1%
Hamitic and Near East Arabic	68.8%
Slavic, Non-Polish	60.3%
Dutch	59.8%
Polish	54.9%
Italian	50.0%
Polynesian	50.0%
Ukrainian	48.3%
Russian	45.8%
Portuguese	44.1%
French	42.3%
Armenian	42.1%

LANGUAGE	SHARE FOREIGN TRAINED
Thai	42.1%
German	39.1%
Hebrew	38.0%
Swahili and Sub- Saharan African	37.0%
Burmese and Southeast Asian	36.6%
Lithuanian	35.9%
Greek	35.7%
Danish	35.4%
Indonesian	35.3%
Scandinavian	31.8%
Japanese	29.9%
Spanish	27.4%
Chinese	26.9%
Korean	25.0%
Native American	25.0%
Navajo	17.4%
Vietnamese	12.4%



Languages Most Over and Under Represented, by Metro

METRO	LANGUAGE MOST UNDER REPRESENTED	LANGUAGE MOST OVER REPRESENTED
Atlanta, GA	Burmese and Southeast Asian	Lithuanian
Austin, TX	Korean	Romanian
Baltimore, MD	Swahili and Sub- Saharan African	Romanian
Birmingham, AL	Sub-Saharan African	Portuguese
Boston, MA	Swahili and Sub- Saharan African	Romanian
Buffalo, NY	Vietnamese	Romanian
Charlotte, NC	Vietnamese	Persian/Farsi
Chicago, IL	Swahili and Sub- Saharan African	Persian/Farsi
Cincinnati, OH	Filipino	Hebrew
Cleveland, OH	Vietnamese	Persian/Farsi
Columbus, OH	Japanese	Hebrew
Dallas, TX	Swahili and Sub- Saharan African	Hebrew
Denver, CO	Swahili and Sub- Saharan African	Hebrew
Detroit, MI	Slavic, Non-Polish	Hebrew
Hartford, CT	Portuguese	Persian
Houston, TX	Burmese and Southeast Asian	Greek
Indianapolis, IN	Swahili and Sub- Saharan African	Persian/Farsi

		1
METRO	LANGUAGE MOST UNDER REPRESENTED	LANGUAGE MOST OVER REPRESENTED
Jacksonville, FL	Swahili and Sub- Saharan African	Persian/Farsi
Kansas City, MO	Vietnamese	Greek
Las Vegas, NV	Swahili and Sub- Saharan African	Persian/Farsi
Los Angeles, CA	Swahili and Sub- Saharan African	Ukrainian
Louisville, KY	Swahili and Sub- Saharan African	Greek
Memphis, TN	Filipino	Turkish
Miami, FL	Swahili and Sub- Saharan African	Persian/Farsi
Milwaukee, WI	Russian	Persian/Farsi
Minneapolis, MN	Swahili and Sub- Saharan African	Hebrew
Nashville, TN	Swahili and Sub- Saharan African	Italian
New Orleans, LA	Korean	Turkish
New York, NY	Swahili and Sub- Saharan African	Persian/Farsi
Oklahoma City, OK	Chinese	Portuguese
Orlando, FL	Swahili and Sub- Saharan African	Greek
Philadelphia, PA	Vietnamese	Persian/Farsi
Phoenix, AZ	Vietnamese	Portuguese

METRO	LANGUAGE MOST UNDER REPRESENTED	LANGUAGE MOST OVER REPRESENTED
Pittsburgh, PA	Swahili and Sub- Saharan African	Turkish
Portland, OR	Ukrainian	Scandinavian
Providence, RI	Southeast Asian	Turkish
Raleigh, NC	Korean	Hebrew
Richmond, VA	Swahili and Sub- Saharan African	Greek
Riverside, CA	Indonesian	Russian
Sacramento, CA	Korean	Scandinavian
Salt Lake City, UT	Vietnamese	Italian
San Antonio, TX	Filipino	Persian/Farsi
San Diego, CA	Hamitic and Near East Arabic	Scandinavian
San Francisco, CA	Polynesian	Scandinavian
San Jose, CA	Polynesian	Slavic, Non- Polish
Seattle, WA	Swahili and Sub- Saharan African	Greek
St. Louis, MO	Slavic, Non-Polish	Persian/Farsi
Tampa, FL	Dutch	Persian/Farsi
Virginia Beach, VA	Japanese	Persian/Farsi
Washington, DC	Swahili and Sub- Saharan African	Romanian



# doximity

Founded in 2011, Doximity connects physicians and advanced practice clinicians to make them more successful and productive. Doximity is the largest secure medical network with over 70 percent of all U.S. physicians as members, enabling collaboration across specialties and every major medical center. Doximity is based in San Francisco and was created by the founders of Epocrates and Rock Health.

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